

**REMARKS**

Claims 1 and 5-12 currently are pending. Claims 1 and 5 have been amended. Support for amendment of claim 1 is on page 18, line 37 of the specification.

The examiner stated in the advisory action of February 28, 2002 that the polymers of the present invention were not strictly anionic. The amendment of claim 5 deleted all substituents having terminal amino groups. Therefore, applicants believe this rejection no longer is proper.

The examiner also maintained the position that Ribba suggested a combination of compounds corresponding to components a) and d) of the present invention. Applicants do not believe the special combination of from 45 to 80% by weight of tert-butyl (meth) acrylate (a) and from 1 to 30% by weight of at least one ethylenically unsaturated compound having at least one C<sub>8</sub>- C<sub>30</sub>-alkyl or -alkylene radical d) can be achieved by routine optimization. Applicants believe the examiner used inadmissible hindsight reasoning.

Also, it is the object of the present invention to provide hair-treatment compositions which have a high propellant gas compatibility and impart smoothness and suppleness to the hair (specification, p. 4, lines 31-35). Ribba refers to crosslinked carboxylic copolymers usable as thickeners in aqueous media (col. 1, lines 6-8). Those copolymers are obtained by copolymerization of monomers comprising as component

a) from 50 to 95% of at least one unsaturated carboxylic monomer (col. 1, line 62-col. 2, line 2). A high amount of carboxylic monomers is typical of thickeners, i.e., products capable of swelling in water in order to modify the rheological properties. The cosmetic compositions of the invention comprise polymers comprising only from 10 to 30% by weight of at least one  $\alpha,\beta$ -ethylenically unsaturated mono- and/or dicarboxylic acid. No suggestion can be found in Ribba to reduce the amount of carboxylic monomers in the disclosed thickeners to obtain polymers that are suitable for hair-treatment compositions which have a high propellant gas compatibility and impart smoothness and suppleness to the hair. The same argument applies to the combination of Ribba and Mori. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching supporting the combination.

For the reasons expressed above, it is urged that the prior art references cited by the examiner either singly or in combination fail to anticipate or suggest the present invention as defined by the amended claims. Accordingly, a *prima facie* case of obviousness has not been established by the examiner, and the rejection under 35 USC § 103 should be withdrawn.

**Please find attached a check for \$1140.00 for the RCE filing fee and a two month extension of time.**

KIM et al.

Serial No. 09/382,708

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11-0345. Please credit any excess fees to such account.

Respectfully submitted,

KEIL & WEINKAUF

A handwritten signature in black ink, appearing to read 'HB Keil', written in a cursive style.

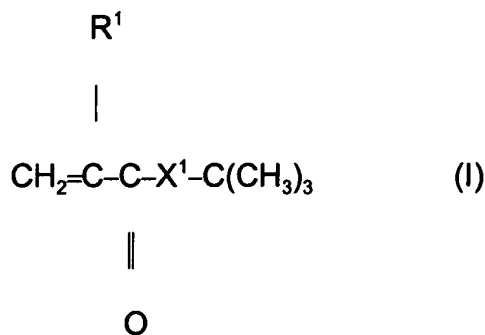
Herbert B. Keil  
Reg. No. 18,967

1101 Connecticut Ave., N.W.  
Washington, D.C. 20036  
(202)659-0100  
HBK/DSK/mks

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

Please amend claims 1 and 5 as follows:

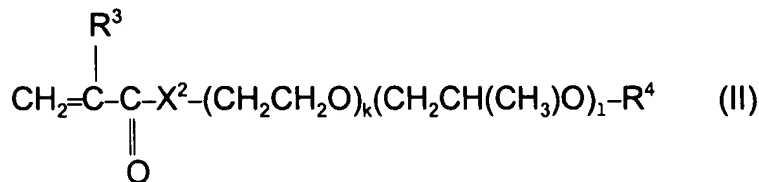
1. (twice amended) A cosmetic composition comprising at least one water-soluble or water-dispersible polymer which comprises, in copolymerized form,
- a) from [40] 45 to 85% by weight of at least one  $\alpha,\beta$ -ethylenically unsaturated monomer of the formula I



in which

 $\text{R}^1$  is hydrogen or  $\text{C}_1\text{-C}_8$ -alkyl, and $\text{X}^1$  is O or  $\text{NR}^2$ , where  $\text{R}^2$  is hydrogen,  $\text{C}_1\text{-C}_8$ -alkyl or  $\text{C}_5\text{-C}_8$ -cycloalkyl,

- b) from 10 to 30% by weight of at least one  $\alpha,\beta$ -ethylenically unsaturated mono- and/or dicarboxylic acid,
- c) from 1 to 20% by weight of at least one compound having at least one  $\alpha,\beta$ -ethylenically unsaturated double bond and at least 5 alkylene oxide units per molecule, chosen from polyether acrylates of the formula II



in which the order of the alkylene oxide units is arbitrary,

k and l independently of one another are an integer from 0 to 50, the sum

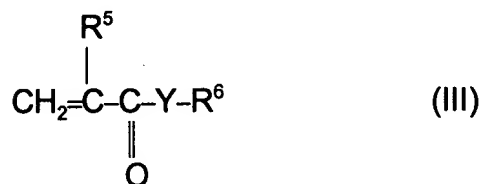
k + l being at least 5,

R<sup>3</sup> is hydrogen or C<sub>1</sub>-C<sub>8</sub>-alkyl, and

R<sup>4</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl,

X<sup>2</sup> is O or NR<sup>2</sup>, where R<sup>2</sup> is hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>5</sub>-C<sub>8</sub>-cycloalkyl,

- d) from 1 to 30% by weight of at least one compound having at least one α,β-ethylenically unsaturated double bond and at least one straight-chain or branched C<sub>8</sub>-C<sub>30</sub>-alkyl or -alkylene radical per molecule, chosen from compounds of the formula III



in which

R<sup>5</sup> is hydrogen or C<sub>1</sub>-C<sub>8</sub>-alkyl,

R<sup>6</sup> is a straight-chain or branched C<sub>8</sub>-C<sub>30</sub>-alkyl radical, and

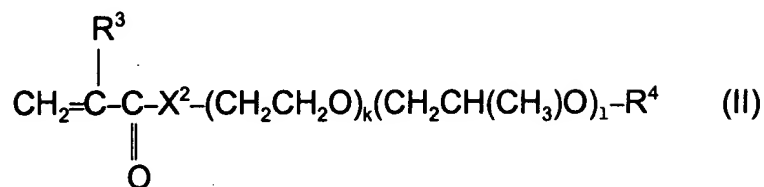
Y is O or NR<sup>7</sup>, where R<sup>7</sup> is hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>5</sub>-C<sub>8</sub>-cycloalkyl,

where the components c) and/or d) can be partially or completely replaced by a component e), where

- e) is at least one compound having at least one α,β-ethylenically unsaturated double bond, at least 5 alkylene oxide units and at least one straight-chain or branched C<sub>8</sub>-C<sub>30</sub>-alkyl or -alkylene radical per molecule, where

component e) is chosen from

- e1) polyether acrylates of the formula II



in which the order of the alkylene oxide units is arbitrary,

k and l independently of one another are an integer from 0 to 50, the sum

k + l being at least 5,

R<sup>3</sup> is hydrogen or C<sub>1</sub>-C<sub>8</sub>-alkyl, and

R<sup>4</sup> is C<sub>8</sub>-C<sub>30</sub>-alkyl,

X<sup>2</sup> is O or NR<sup>2</sup>, where R<sup>2</sup> is hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>5</sub>-C<sub>8</sub>-cycloalkyl,

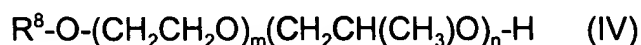
- e2) urethane (meth)acrylates containing alkylene oxide groups and mixtures thereof

or the salts thereof.

5. (thrice amended) A composition as claimed in claim 1, where component e2) comprises, in incorporated form, the following compounds: f, g and h; or f, h, i and m; or g and l; or i, l and m; or f, i, l and m; or f, h, k and m and optionally other compounds, where

f) is at least one diisocyanate,

g) is at least one compound of the formula IV



in which the order of the alkylene oxide units is arbitrary,

$R^8$  is a straight-chain or branched  $C_8$ - $C_{30}$ -alkyl radical,

m and n independently of one another are an integer from 0 to 50, the sum m+n being at least 5,

- h) is at least one  $\alpha,\beta$ -ethylenically unsaturated compound which, per molecule, additionally contains at least one group which is reactive toward isocyanate groups,
- i) is a compound chosen from monohydric alcohols, diols, amines, diamines and aminoalcohols having at least one straight-chain or branched  $C_8$ - $C_{30}$ -alkyl or -alkylene radical per molecule, and mixtures thereof,
- k) at least one aliphatic, cycloaliphatic or aromatic monoisocyanate,
- l) is at least one  $\alpha,\beta$ -ethylenically unsaturated compound which additionally contains at least one isocyanate group per molecule,
- m) is at least one compound of the formula V



in which

the order of the alkylene oxide units is arbitrary,

p and q are as defined above for m and n,

$R^9$  is OH [or  $NHR^{11}$ , where  $R^{11}$  is hydrogen,  $C_1$ - $C_8$ -alkyl or  $C_5$ - $C_8$ -cycloalkyl],

$R^{10}$  is H[,  $CH_2CH_2NHR^{11}$  or  $CH_2CH(CH_3)NHR^{11}$ ].